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10/716,660	11/20/2003	Raymond J. LeBlanc	87321.1680	7441

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BAKER & HOSTETLER LLP
Washington Square, Suite 1100
1050 Connecticut Avenue, N.W.
Washington, DC 20036

EXAMINER	
KURR, JASON RICHARD	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/716,660	LEBLANC ET AL.	
	Examiner	Art Unit	
	Jason R. Kurr	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-13 and 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (US 5,406,634) in view of Ajamian (US 6,870,936 B1) and in further view of Champion (US 6,778,869).

With respect to claim 1, Anderson discloses a master system panel (fig.1), comprising: a signal source (fig.1 #15, col.3 ln.49-50); a digital signal transceiver that receives a digital signal from the signal source (fig.1 "input to #11 from #15, col.3 ln.49-55); and a command execution facility comprising a processor (fig.1 #10), wherein said command execution facility accepts and executes a command received via said transceiver (col.4 ln.47-57); and a speaker (fig.1 #22) in communication with the command execution facility that is initialized and configured by the command execution facility (col.4 ln.47-51).

Anderson does not disclose expressly wherein the signal source comprises a computer and a differential transceiver.

Champion discloses a computer that is capable of transmitting digital audio data to loudspeaker units (col. 4 ln.23-36). At the time of the invention it would have been obvious to a person of ordinary skill in the art to allow the control computer #10 of Anderson to function as an audio input to digital input #15 as the computer (fig.1 #102) of Champion functions as a source of audio to loudspeakers #103A,B. The motivation for doing so would have been to provide audio signals to the system that are accessible to personal computers, such as internet broadcasts, CD's and DVD's as taught by Champion (col.1 ln.18-49).

Anderson does not disclose expressly wherein the master system panel comprises an analog audio signal transmitter.

Ajamian discloses a control platform for multiple signal routing wherein a master system panel (fig.6 #120) comprises an analog signal transmitter (fig.6 #136 "Monitor Out", col.10 ln.1-15). At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the analog signal transmitter of Ajamian in the master system panel of Anderson. The motivation for doing so would have been to allow an operator to monitor the audio signals transmitted via transmission line #24 through headphones from the location of the master system panel. This would allow the operator to make sure the appropriate audio signals are transmitted to their respective audio amplifier systems.

With respect to claim 2, Anderson discloses the master system panel of claim 1, further comprising: a set of software to control said command execution facility (col.4 ln.33-35).

With respect to claim 3, Anderson discloses the master system panel of claim 1, further comprising: an audio input port (fig.1 #13,15); an audio amplifier (fig.2 #37); and an audio output port (fig.1 #16).

With respect to claim 4, Anderson discloses the master system panel of claim 1, wherein said command execution facility further comprises nonvolatile data storage (col.1 ln.37-40).

With respect to claim 5, Anderson discloses the master system panel of claim 1, further comprising: a manual input to the master system panel of at least one instruction (fig.1 #20, col.3 ln.42-48); an instruction to suspend normal operation (col.5 ln.12-27); a command execution facility (fig.1 #14) for externally applied commands following suspension of normal master system panel operation; and a command execution facility (fig.1 #14) for normal operation following reception of an externally applied command to resume normal operation (col.3 ln.53-55).

With respect to claim 6, Anderson discloses a programmable speaker amplifier control system, comprising: a master system panel (fig.1) comprising: a signal source

(fig.1 #15, col.3 ln.49-50); a digital signal transceiver that receives a digital signal from the signal source (fig.1 "input to #11 from #15, col.3 ln.49-55); and a command execution facility comprising a processor (fig.1 #10), wherein said command execution facility that accepts and executes a command received via said transceiver (col.4 ln.47-57); a speaker (fig.1 #22) in communication with the command execution facility that is initialized and configured by the command execution facility (col.4 ln.47-51); a speaker amplifier (fig.2 #37); and a communication subsystem interconnecting said master system panel and said speaker amplifier (fig.1,2 #24,26).

Anderson does not disclose expressly wherein the signal source comprises a computer and a differential transceiver.

Champion discloses a computer that is capable of transmitting digital audio data to loudspeaker units (col. 4 ln.23-36). At the time of the invention it would have been obvious to a person of ordinary skill in the art to allow the control computer #10 of Anderson to function as an audio input to digital input #15 as the computer (fig.1 #102) of Champion functions as a source of audio to loudspeakers #103A,B. The motivation for doing so would have been to provide audio signals to the system that are accessible to personal computers, such as internet broadcasts, CD's and DVD's as taught by Champion (col.1 ln.18-49).

Anderson does not disclose expressly wherein the master system panel comprises an analog audio signal transmitter.

Ajamian discloses a control platform for multiple signal routing wherein a master system panel (fig.6 #120) comprises an analog signal transmitter (fig.6 #136 "Monitor

Out", col.10 ln.1-15). At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the analog signal transmitter of Ajamian in the master system panel of Anderson. The motivation for doing so would have been to allow an operator to monitor the audio signals transmitted via transmission line #24 through headphones from the location of the master system panel. This would allow the operator to make sure the appropriate audio signals are transmitted to their respective audio amplifier systems.

With respect to claim 7, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a set of commands to accept system panel configuration instructions by way of said communication subsystem (col.2 ln.32-39).

With respect to claim 8, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a set of commands to control at least one digitally enabled speaker amplifier (col.2 ln.32-42).

With respect to claim 9, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a command to define the state of a relay (fig.2 #34) that is an integral part of a speaker amplifier system element and bears an assignable unit number and device number (col.4 ln.47-57).

With respect to claim 10, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising at least one command to define the zone assignments for at least one digitally enabled speaker amplifier (col.1 ln.15-34, col.4 ln.47-57).

With respect to claim 11, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a command to assign a new address to a master system panel (col.4 ln.51-55).

With respect to claim 12, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a command to define a master/satellite status of a speaker amplifier system panel (col.2 ln.32-39).

With respect to claim 13, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a command to associate a control input switch closure line to a speaker amplifier system panel with a zone assignment (col.2 ln.32-39).

With respect to claim 15, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a command to acquire current contents of configuration memory in a speaker amplifier system panel (col.3 ln.60-62).

With respect to claim 16, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a command to terminate external control (fig.2 #41, col.5 ln.1-11), thereby restoring normal operation for the master system panel in a programmable speaker amplifier system. It is implied that the system of Anderson returns to normal operation after the operator ceases to use the override functions of the external control.

With respect to claim 17, Anderson discloses the programmable speaker amplifier control system of claim 6, wherein said speaker amplifier further comprises: an analog audio signal input port (fig.2 "input of #37"); an amplifier (fig.2 #37) to amplify signals impinging at said analog audio signal input port; a power supply (fig.2 "power supply") to convert electrical power from an available source (fig.2 "local power line") to the form required for amplifier operation; and a loudspeaker (fig.2 #39).

With respect to claim 18, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising: a digital communication input port (fig.2 #30); a digital communication signal decoder (fig.2 #28, col.4 ln.20-22); a digital command interpreter (fig.2 #32); a nonvolatile storage element (col.4 ln.33-35); and a digital reply generator (fig.2 #47).

With respect to claim 19, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising: an electronic switch (fig.2 #34) under the

control of said digital command interpreter; and an electrical interconnect circuit permitting establishment and interruption of the signal path from an analog audio signal input port to said loudspeaker (fig.2 #32, col.4 ln.58-68).

With respect to claim 20, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising: a first transceiver (fig.1 #16,18) in said master system panel; and a second transceiver (fig.2 #28,47) in said speaker amplifier, capable of establishing bidirectional communication with said first transceiver.

With respect to claim 21, Anderson discloses the programmable speaker amplifier system of claim 6, further comprising a satellite system panel (fig.1 #22) under the control of said master system panel.

With respect to claim 22, Anderson discloses the programmable speaker amplifier system of claim 6, however does not disclose expressly wherein the system further comprises a booster extending the physical and electrical range of said first transceiver. Official Notice is taken that signal boosters are well known in the art and at the time of the invention it would have been obvious to one of ordinary skill in the art to use a booster at the output of the transmitter #16 of Anderson. The motivation for doing so would have been to extend the range the intelligent speakers #22 can be placed from the master system panel #10,11.

With respect to claim 23, Anderson discloses the programmable speaker amplifier system of claim 6, however does not disclose expressly wherein said communications subsystem further comprises an RS-485 bidirectional differential serial communications port and associated interface electronics. Official Notice is taken that the RS-485 interface standard is well known in the art and would have been obvious to a person of ordinary skill in the art use in place of the transmitter #16, receiver #18 communication system #24,26 in the invention of Anderson. The motivation for using this interface would have been to allow for communicating at longer distances and higher bit rates than other standards such as the RS-232 standard.

With respect to claim 24, Anderson discloses the programmable speaker amplifier system of claim 6, however does not disclose expressly wherein said communications subsystem further comprises a bidirectional serial communications port and associated interface electronics. Official Notice is taken that the IEEE 802.3 standard is well known in the art and would have been obvious to a person of ordinary skill in the art use in place of the transmitter #16, receiver #18 communication system #24,26 in the invention of Anderson. The motivation for using this interfaces standard would have been to allow for high-speed communication between the master system panel and the intelligent speakers.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (US 5,406,634) in view of Ajamian (US 6,870,936 B1) in view of Champion (US 6,778,869) and in further view of Strohbeck et al (US 6,650,232 B1).

With respect to claim 14, Anderson discloses the programmable speaker amplifier system of claim 6, however does not disclose expressly wherein the system further comprises a command to specify whether a speaker amplifier system panel is to operate in conjunction with a backup power source.

Strohbeck discloses a sound control system wherein a backup power source (i.e battery) is provided to power a speaker upon the failure or disconnection of the main power source (col.1 ln.6-26).

At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the backup power source of Strohbeck in the speaker units #22 of Anderson.

The motivation for doing so would have been to provide alternative power to the speakers in the event that the main power is cut off or disconnected. This would provide backup power in cases of emergency, wherein an alarm would continue to sound even after main power is cut off.

Claims 25-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (US 5,406,634) in view of Meguro et al (US 5,287,074).

With respect to claim 25, Anderson discloses a programmable speaker amplifier control system (fig.1), comprising: source means for providing an electronic signal (fig.1 #15, col.3 ln.49-50); processing means for processing electronic signals (fig.2 #32); communicating means (fig.2 #35) for communicating between said processing means and a digitally enabled speaker amplifier (fig.2 #37); configuring means (fig.2 #28) for configuring said processing means in response to externally applied signals (fig.2 #24, col.4 ln.20-32); and outputting means (fig.2 #47) in communication with the command execution facility that is initialized and configured by the configuring means (col.5 ln.8-11).

Anderson does not disclose expressly wherein the system comprises a noise immunity increasing means for increasing noise immunity of the programmable speaker amplifier control system.

Meguro discloses a shield (fig.1 #20) for shielding electromagnetic noise from a wire (fig.1 #10) carrying an electric signal. Such a shield increases the noise immunity of an electrical system (col.1 ln.11-19). At the time of the invention it would have been obvious to a person of ordinary skill it the art to use the electromagnetic shielding of Meguro on the data transmission lines (fig.2 #24,26) of Anderson. The motivation for doing so would have been to reduce the interference effects of electromagnetic noise on the transmitted data.

With respect to claim 26, Anderson discloses the programmable speaker amplifier control system of claim 25, further comprising: interrogating means (fig.1 #10)

for interrogating said digitally enabled speaker amplifier by an interrogation routine (col.3 ln.53-62).

With respect to claim 27, Anderson discloses the programmable speaker amplifier control system of claim 25, further comprising: recovering means (fig.2 #47,26) for recovering system configuration information from automated records of the status of a system panel maintained in nonvolatile storage media (col.3 ln.56-62).

With respect to claim 28, Anderson discloses a process for configuring a speaker amplifier system (fig.1,2), comprising: providing an electronic audio signal (fig.1 #15, col.3 ln.49-50); communicating between an external signal source (fig.1 #13,15) and a system panel (fig.1,2 #22); initializing a speaker (fig.1 #22, fig.2 #39) of the speaker amplifier system (col.4 ln.47-51); configuring a system panel (col.2 ln.19-42); and outputting the electronic audio signal using the speaker (col.4 ln.65-68).

Anderson does not disclose expressly wherein the process comprises increasing a noise immunity of the programmable speaker amplifier control system.

Meguro discloses a shield (fig.1 #20) for shielding electromagnetic noise from a wire (fig.1 #10) carrying an electric signal. Such a shield increases the noise immunity of an electrical system (col.1 ln.11-19). At the time of the invention it would have been obvious to a person of ordinary skill it the art to use the electromagnetic shielding of Meguro on the data transmission lines (fig.2 #24,26) of Anderson. The motivation for doing so would have been to reduce the interference effects of electromagnetic noise

on the transmitted data.

With respect to claim 29, Anderson discloses the process for configuring a speaker amplifier system of claim 28, further comprising the steps of: interrogating a system panel with a command that causes the interrogated system panel to respond to the command by transmitting a report of its configuration; and reading the response of a system panel so interrogated (col.3 ln.56-62).

With respect to claim 30, Anderson discloses the process for configuring a speaker amplifier system of claim 28, further comprising the steps of: displaying the response of a system panel to interrogation; and storing the response of a system panel so interrogated (fig.6, col.6 ln.53-65). It is implied that the parameter values (i.e. "response of a system panel") are stored/remain fixed after being set (i.e. "interrogated") by a user.

Response to Arguments

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason R. Kurr whose telephone number is (571) 272-0552. The examiner can normally be reached on M-F 10:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 273-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JK
JK

VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600